

SUBCOMMITTEE NO. 2

Agenda

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Agenda Part I: AB 32

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Resources—Environmental Protection—Energy

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AB 32 – Global Warming Solutions Act of 2006 Implementation

Governor’s Proposals for AB 32 Implementation

The California Global Warming Solutions Act of 2006 (AB 32, Nunez), requires the reduction of statewide greenhouse gas emissions to 1990 levels by 2020. This is a 25 percent reduction over current levels, or approximately 174 million metric tons of greenhouse gas emissions. The largest greenhouse gas emitters in California are the transportation and energy sectors, while cattle and landfills also contribute significant amounts of greenhouse gases.

The largest single reduction in greenhouse gases is anticipated from AB 1493 (Pavley, 2002), which mandates reduction of greenhouse gases from vehicles. The Air Resources Board (ARB) adopted regulations relating to AB 1493 in 2004 and expects the greenhouse gas reduction to be around 17 percent of the estimated reduction needed to achieve the 1990 target level of emissions by 2020.

AB 32 Mandated Next Steps

June 30, 2007 – Publicize greenhouse gas “early action measures” that can be implemented prior to the other Air Resources Board (ARB) emissions reduction measures and regulations that will become operative beginning on January 1, 2012.

July 1, 2007 – Convene an environmental justice committee, comprised of representatives of communities most significantly exposed to air pollutants, including communities with minority and/or low-income populations

January 1, 2008 – ARB determines statewide greenhouse gas emissions level in 1990.

January 1, 2009 – ARB prepares and approves “scoping plan” to achieve maximum technologically feasible and cost-effective greenhouse gas emissions reductions by 2020. The Plan will make recommendations on direct emission reduction measures, alternative compliance mechanisms, market-based mechanisms, and incentives.

Governor’s Executive Order

In addition to AB 32, the Governor’s Executive Order S-3-05 called for the creation of the California Climate Change Advisory Committee. The Governor’s Executive Order was already in place by the time AB 32 passed. The Governor’s Climate Action Team, in its 2006 Climate Action Team Final Report to the Governor and Legislature, identified strategies to reduce greenhouse gas emissions to 1990 levels by 2020.

0555 Secretary for Environmental Protection

1. California Global Warming Solutions Act of 2006

Governor's Budget. The Governor's Budget proposes \$1.39 million from the Air Pollution Control Fund for five permanent positions and contract funds (\$700,000) to coordinate climate change efforts.

Proposed Actions. The Secretary for Environmental Protection is proposing to:

- Coordinate these increased government-wide efforts.
- Ensure that individual program actions are cohesive and consistent.
- Monitor overall progress toward the emission reduction limits.
- Prepare the overarching economic analysis.
- Prepare the multi-state registry framework.
- Prepare the public education campaign.
- Manage the increased administrative workload associated with additional rulemakings, contracts, and procurements.
- Manage out-of-state travel requests.

The proposed \$700,000 for external professional contract resources will support:

- Coordinated economic analysis, including job growth, technology exports, and other aspects.
- Development of the multi-generational public education campaign outlined in the Climate Action Team's report.

LAO Recommendation. The LAO believes that the activities described in the proposal – planning, coordinating, monitoring, analyzing, and overseeing greenhouse gas emissions reduction activities at various state departments and agencies – would go beyond coordination, particularly given the types of positions being requested. Specifically, of the five positions requested, three are Air Pollution Specialists, which are highly technical staff typical of those employed by the Air Resources Board (ARB) for monitoring and regulating sources of air pollution. A fourth position is for a similarly technical Air Resources Supervisor who would oversee the other three technical positions. The fifth position would help the Secretary with public education and outreach. In addition, the proposal requests \$700,000 to pay for external contracts for such activities as analysis of related job growth, technology exports, and other economic effects.

The LAO finds that the budget proposal does not justify the need for the requested technical positions and contracted services based on its role in coordinating the state's greenhouse gas emission reduction activities. The LAO further finds that the highly technical positions would be more effectively employed at an entity, such as the ARB, that directly undertakes technical monitoring and regulation of greenhouse gases and has established programs and technical expertise in the subject area. Similarly, the LAO believes that technical and economic analysis is better performed by or contracted through an entity such as the ARB. Finally, the LAO believes it is already within the Secretary's day-to-day duties to coordinate public participation and

outreach and thinks that such activities could be performed with existing resources. The LAO recommends denying the Secretary's \$1.4 million funding request and associated positions.

Staff Analysis. The Legislature should carefully consider the proper role for the Secretary for Environmental Protection in AB 32 implementation. None of the proposed actions for the Secretary for Environmental Protection are mandated by AB 32 to be performed by the Secretary for Environmental Protection, but rather within statute are Air Resources Board responsibilities. However, the Secretary for Environmental Protection has unique authority to pressure other Cal-EPA departments to work toward greenhouse gas reductions that the ARB does not have.

Staff Recommendation. The only statutory responsibility assigned to the Secretary for Environmental Protection under AB 32 is to continue coordination activities of the Climate Action Team established under Executive Order. At the same time, AB 32 requires all state agencies to consider and adopt measures to reduce greenhouse gas emissions.

Therefore, staff recommends that the Subcommittee approve two positions for the purposes of overseeing the activities of the Climate Action Team, and for tracking state agency climate activities and greenhouse gas reductions as per the law. Staff recommends rejection of the contract funds.

In addition, in order to ensure that state agencies actually adopt and implement their own internal measures to reduce greenhouse gas emissions, staff recommends the adoption of a trailer bill establishing a "State Agency Greenhouse Gas Reduction Report Card" that does the following:

1. Establishes a routine, consistent, public, and quantified set of reports and metrics for state agencies to use to show the progress they are making in reducing their greenhouse gas emissions consistent with AB 32 and the Administration's Climate Action Team (CAT) Report, and to have those reports and metrics independently audited and verified.
2. Requires each state agency to submit to the Governor and Legislature, and to post on its website and/or the Climate Action Team website, its current greenhouse gas emissions, the target reductions it is responsible for under the CAT Report, and its progress in meeting those targets by the dates established under the CAT Report.
3. Requires the positions approved in the budget for the Secretary of Cal-EPA to compile the information into a clear, standardized format and publish a "State Agency Greenhouse Gas Reduction Report Card" once every six months.
4. Require the Bureau of State Audits to review the reports and prepare an independent audit to review the numbers and activities prepared by state agencies to verify that they are in fact achieving the targeted emission reductions.

3900 State Air Resources Board

2. Funding Sustainability

LAO Analysis. AB 32 provides the Air Resources Board with the authority to assess fees for purposes of implementing the California Global Warming Solutions Act of 2006. The Governor's budget does not rely on any increases of existing fees, nor does it propose any new fees. In fact, in the case of funding proposed from Air Pollution Control Fund (APCF), the budget relies on drawing down substantial fund balances carried over from previous years, along with a \$15.2 million loan to APCF from the Motor Vehicle Account—an account with the potential for major future-year pressures—to provide the funding budgeted for 2007-08. This level of funding would not be available from APCF in 2008-09, unless significant fee increases or APCF-funded program reductions in other areas were made.

The budget's funding proposal for AB 32 implementation is clearly not sustainable. However, when asked by the LAO, the administration was unable to specify its long-term funding plan for the state's greenhouse gas emissions reduction activities or whether such a plan would include use of ARB's statutory authority to assess new fees. This lack of planning is particularly problematic given that the activities described in the budget proposal represent only the initial development stages of the state's greenhouse gas reduction programs. The programs that result from this initial ramp-up activity could involve costs well beyond the \$35.8 million included in this year's budget proposal.

LAO Recommendation. The LAO believes it important that the Legislature, in evaluating the administration's proposal, be informed of the administration's long-term plan to fund the state's greenhouse gas (GHG) emissions reduction programs. Therefore, the LAO recommends that the administration report at budget hearings on its long-term funding plan, including its estimate of future-year costs of the state's greenhouse gas emissions reduction programs, how these future-year costs would be funded, and whether the administration anticipates either increasing existing fees and/or creating new fees to support the identified funding requirements. To ensure that the Legislature is advised of the administration's long-term funding plans for these programs when it evaluates next year's budget, the LAO recommends the adoption of the following supplemental report language:

Item 3900-001-0115. The Air Resources Board shall submit a report to the Legislature, in conjunction with the submittal of the 2008-09 Governor's Budget, on its long-term funding plan to fund the state's greenhouse gas emissions reduction programs, including its estimate of future-year costs of these programs, how these future-year costs would be funded, and whether the administration proposes either increasing existing fees and/or creating new fees to support the identified funding requirements.

Staff Recommendation. Staff recommends adoption of the SRL recommended by the LAO with additional language stating the legislature's intent that the funding of the AB 32 program from APCF and MVA is a temporary arrangement, that the Administration to find an appropriate, stable, and ongoing funding stream for the AB 32 implementation program as the

MVA/APCF have other important claims on those funds, that the Administration should do an assessment and provide plan for the 2008-09 budget year that finds another way to provide long-term funding for the program, and that the plan, to the extent feasible, show how the APCF will be refunded with the funds used in the budget yet for climate.

3. Implementation of the California Global Warming Solutions Act of 2006

Governor's Budget. The Governor's Budget proposes \$24,358,000 from the Air Pollution Control Fund for 123 permanent positions and contract funds (\$8.9 million) to implement AB 32 responsibilities. Of the total amount, \$15,179,000 is a loan from the Motor Vehicle Account.

Proposed Action. There are multiple actions the Air Resources Board intends to undertake. These are as follows:

1. Develop and Implement Inventory and Reporting Programs (19 positions, \$900,000 contracts, \$150,000 equipment)
 - a. Create comprehensive greenhouse gas inventory and establish 2020 limit (9 positions)
 - b. Develop, implement, and enforce mandatory reporting (10 positions)
2. Complete Greenhouse Gas Reduction Plan (12 positions, \$300,000 contracts)
3. Develop and Implement Measures to Reduce California Greenhouse Gas Emissions (64 positions, \$5 million contracts, \$200,000 equipment)
 - a. Develop and implement early action reduction measures (5 positions)
 - b. Develop and implement source-specific measures (17 positions)
 - c. Develop, evaluate, and implement market-based compliance system (24 positions)
 - d. Develop protocols for generation of early or voluntary reductions and for emission reduction credits (8 positions)
4. Applied Studies and Scientific Analysis (5 positions, \$1.8 million contracts, \$100,000 equipment)
 - a. Applied studies (4 positions, \$100,000 for equipment)
 - b. Source test method development and emission testing (1 position, \$250,000 equipment)
5. Program Outreach, Oversight, and Support (23 positions, \$200,000 contracts)
 - a. Coordinate with the Public Utilities Commission and the Energy Commission to reduce greenhouse gases from the electricity sector (2 positions)
 - b. Advisory committees (2 positions)
 - c. International consultation and outreach (2 positions)
 - d. Legislative outreach (2 positions)
 - e. Legal support (4 positions)
 - f. Information technology support (4 positions)
 - g. Administrative support (7 positions)

LAO Recommendation. The LAO finds that the budget proposal assumes the inclusion of market-based measures in the state's greenhouse gas emissions reduction regulations. For example, for 24 of its requested 123 permanent positions, ARB's proposal describes tasks involving, in part, the implementation of market-based mechanisms. In addition, ARB's proposal specifies the anticipated use of one particular type of market-based mechanism, known as cap-and-trade. However, when the LAO asked the administration what evaluation led it to assume the inclusion of market-based measures in the state's greenhouse gas emissions reduction efforts, the administration could cite only a bibliography of academic publications and the prevalence of market-based measures as part of greenhouse emissions reduction programs in other jurisdictions.

The use of market-based mechanisms to control greenhouse gas emissions in California involves important policy choices and inherent tradeoffs in which the LAO believes the Legislature should be involved. While all market-based systems have in common some degree of flexibility being granted to regulated sources and the establishment of cost signals, there is substantial variation among potential market-based systems. For example, that variation can include such fundamental issues as whether the government chooses to set the quantity of allowable emission (as in a trading program) or to set the "price" of emissions (as under a fee-for-emitting program); whether such a program will generate revenue and, if so, how to distribute that revenue; and what sectors or entities will bear the costs imposed by such a program.

In addition, the LAO finds that the ARB's budget proposal mentions designing a market-based mechanism to accommodate possible linkages between California's market-based greenhouse gas emissions reduction program and similar programs operating or that may come to operate in other states, regions, and countries. The LAO believes the Legislature should be made aware of, and carefully consider, any such system before California joins its regulatory efforts to those of jurisdictions over which the state has no authority. Given the major policy implications, any linkages with other jurisdictions should be ratified in a policy bill.

AB 32 specifies evaluations that ARB must complete before it includes market-based mechanisms in its greenhouse gas emissions regulations. The LAO notes that as ARB has yet to conduct these evaluations, the Legislature therefore lacks information that it thought important to make an assessment of any proposed market-based regulatory system to control greenhouse gas emissions. In addition, it is premature to authorize funding and positions to implement a very specific market mechanism (namely, cap-and-trade), until these evaluations have been conducted.

The LAO further recommends that the Legislature approve the 24 positions working on developing market-based mechanisms as three-year, limited-term positions only. The LAO thinks this three-year period will give ARB staff sufficient time to develop and evaluate various market-based mechanisms, but prevent it from undertaking implementation activities.

Staff Analysis. As noted above, AB 32 establishes a very specific and detailed schedule for implementation of greenhouse gas emission reduction activities. In 2007-2008, the law calls for the adoption of early action measures and reporting and verification regulations, as well as establishment of the statewide emissions limit. Action such as the adoption of market-based

compliance mechanisms are prohibited until the ARB adopts a scoping plan, and takes other actions as required by law, all of which are budget year plus one actions.

Staff Recommendation. Staff recommends the Subcommittee take the following actions:

1. Approve positions for greenhouse gas emissions inventory (19 positions, \$900,000 contracts, \$150,000 equipment).
2. Approve 12 positions and \$300,000 in contract funds to begin preparation of scoping plan due in fiscal year 2008-2009.
3. Approve positions for adoption and implementation of rules and regulations for reduction of greenhouse gas emissions as follows:
 - a. Approve requested 5 positions, and augment by an additional 12 positions, for adoption and implementation of early action measures as specified under AB 32.
 - b. Approve requested 27 positions for source-specific emission reductions, and augment by an additional 14 positions. Adopt budget bill language which specifies that these positions may be used solely for direct emission reductions as defined under AB 32.
 - c. Approve 2 positions to begin assessment and evaluation of market-based compliance mechanisms for incorporation into scoping plan and for consideration by the state board consistent with AB 32 requirements. Adopt budget bill language requiring that these positions evaluate and assess all market-based compliance mechanisms (including rebates, carbon-based emission fees, auction mechanisms, as provided under AB 32), and not simply “cap-and-trade.”
4. Approve 8 positions for development of methodologies for voluntary greenhouse gas emission reductions as specified under AB 32 and adopt trailer bill language requiring, to the extent the ARB adopts a forestry protocol for early credit, that it use the preexisting forestry protocols established under law by the Climate Action Registry unless the state board determines they need to be updated based upon new scientific evidence.
5. Approve the following contract funds for activities associated with (3) and (4) above and disapprove all other contract funding for those items (see page 1-21 of the Administration’s BCP):
 - a. \$500,000 to support rulemaking (early action measures).
 - b. \$200,000 for Life Cycle Analyses of the GHG emissions associated with the production of biofuels.
 - c. \$300,000 for source test method development and emissions testing for perfluorocarbons, methane from area-wide sources, and alternative solvents.

- d. \$250,000 for technology innovations and cost assessment and prediction of market impacts of the innovations.
 - e. \$100,000 for the development of electronic record-keeping and reporting tools.
 - f. \$1,000,000 for the development of emissions reduction credit methodologies and/or protocols for businesses, water and local governments.
6. Approve as budgeted studies and scientific analyses positions and contract dollars (5 positions, \$1.8 million in contract dollars, and \$100,000 in equipment).
7. Act on public outreach and support positions as follows:
- a. Reject positions for Public Utilities Commission and California Energy Commission “coordination” until the Administration presents a clear and comprehensive description of assignment of responsibilities among the energy agencies and the ARB on greenhouse gas reduction actions for the electricity and natural gas sectors.
 - b. Approve the 2 requested positions for advisory committees with budget bill language that requires those positions to be used to staff those committees established by law under AB 32 (i.e. the Environmental Justice Advisory Committee and the Economic and Technology Advancement Advisory Committees) and adopt trailer bill language ensuring that both committees are subject to state public notice and open meeting laws.
 - c. Reject the international consultation and outreach positions (2 positions), but approve the legislative outreach positions (2 positions).
 - d. Approve the requested 4 legal positions, the 4 information technology support positions, and the 7 administrative support positions.
8. Adopt trailer bill language prohibiting the use of any staff for rulemaking development or adoption of market-based compliance mechanisms in the budget year until the scoping plan is complete, ARB findings have been made relative to the use of those mechanisms, and the other conditions for the use of market-based compliance mechanisms have been met, as required under AB 32.

3910 California Integrated Waste Management Board

4. Implementation of the California Global Warming Solutions Act

Background. The California Integrated Waste Management Board (CIWMB) has jurisdiction over solid waste landfills, which are one of the largest sources of greenhouse gases in the state. Organic materials, such as yard trimmings and wood debris, comprise 30 percent (12 million tons) of what is landfilled, and paper alone comprises another 21 percent (over 8 million tons). These materials generate methane, which has 23 times the greenhouse gas effect as carbon dioxide.

Governor's Budget. The Governor's Budget proposes \$618,000 from the Integrated Waste Management Account for one permanent position to work on AB 32 implementation and contract funds (\$500,000).

Proposed Actions. The CIWMB intends to implement both solid waste landfill gas and reduced waste strategies to meet the statutory year 2020 greenhouse gas emissions limit. The three strategies that the CIWMB intends to undertake are:

- Increasing recovery of recyclables to achieve and maintain the 50 percent statewide diversion goal.
- Implementing additional recycling, composting, and other technologies to move towards zero waste.
- Improving landfill gas (methane) recovery.

The requested position would:

- Staff the Climate Action team and its subgroups established to conduct economic analyses and market-based options.
- Identify and quantify strategies.
- Coordinate the development of work plans, timelines, and cost-benefit analyses.
- Aide in the establishment of priorities and coordinate research activities.
- Work through legislative changes that are required.
- Coordinate with the Air Resources Board in the development of a mandatory reporting system, measures, and regulations to achieve greenhouse gas reductions.
- Monitor and report on progress.
- Facilitate the implementation of diversion solutions that achieve the greenhouse gas emission reduction targets.

The contract funding will be used to conduct research for life-cycle assessment, detailed economic and market analyses, and analysis of landfill gas recovery technologies and efficiencies.

Staff Analysis. The main strategies that CIWMB intends to pursue to reduce greenhouse gases lack detail. The CIWMB clarified direction verbally at a meeting with staff, but the more focused direction should be written in budget bill language. As explained to staff, the CIWMB

intends to examine waste stream diversion possibilities and analyze the precise greenhouse gas emissions from landfill waste.

Staff Recommendation. Staff recommends that the funding for one position be approved, that the contract funds be rejected, and that trailer bill language be adopted to require the position to develop and implement a state minimum standard and best management practices for landfill operations that controls methane emissions from those facilities by July 1, 2008.

3960 Toxic Substances Control

5. Achieving California Global Warming Solutions

Background. The Department of Toxic Substances Control (DTSC) is responsible for permitting and authorizing the treatment of hazardous waste facilities. There are 130 permitted and/or authorized hazardous waste facilities in the state. In addition, there are approximately 20 closed hazardous waste landfills that received mixed wastes during operations. There are three primary sources of air emissions at hazardous waste facilities: 1) processing units, 2) equipment leaks, and 3) tanks, surface impoundments, and containers.

Since 1990, the United States Environmental Protection Agency (USEPA) has mandated, through the Resource Conservation and Recovery Act, that organic air emissions from hazardous waste be controlled. The DTSC has received authorization from the USEPA to administer the State Hazardous Waste Program in lieu of the Resource Conservation and Recovery Act.

Under existing law, large quantity generators and owner/operators of hazardous waste treatment, storage, and disposal facilities must monitor and control the release of air emissions from volatile organic hazardous wastes. Current law requires process unit vents for units that manage hazardous waste that has an annual average total organic concentration of ten parts per million by weight or greater. Also, if a facility manages hazardous waste that contains organic concentrations of ten percent by weight then equipment leak standards apply. Also, under current law, if the hazardous waste contains greater than 500 parts per million by weight, then the facility must control volatile organic compounds air emissions from containers, surface impoundments, and tanks using either engineering controls, vapor collection systems, and/or management approaches. These requirements do not apply to small quantity generators and conditionally exempt small quantity generators.

Governor's Budget. The Governor's Budget proposes \$115,000 from the Hazardous Waste Control Account for one position to support the development and implementation strategies towards achieving the goals of reducing greenhouse gas emissions.

Proposed Actions. DTSC is anticipating that the Air Resources Board (ARB) will develop new regulations that will apply to hazardous waste facilities emissions. If so, the hazardous waste facilities not meeting the new criteria will require equipment upgrades and/or changes to their operations to comply with the requirements, and DTSC must modify their permits.

DTSC is proposing to carry out life-cycle analyses to identify potential toxic releases or unintended environmental consequences. DTSC is also proposing to assist in carrying out multimedia assistance to California businesses on greenhouse gas reducing processes that consider overall societal benefits, including reductions in other air pollutants, diversification of energy sources, and other benefits to the economy, environment, and public health. Specifically, DTSC will:

- Identify lead staff to establish contact with ARB and the California Integrated Waste Management Board staff working on implementation of AB 32. Form an internal

workgroup with technology and air emission expertise to oversee permit conditions and provide input as needed.

- Evaluate and modify existing permit conditions at facilities that are likely contributors and/or precursors to greenhouse gases.
 - Prioritize facilities by their potential greenhouse gas impact and inspect each facility.
 - Gather and evaluate monitoring data.
 - Identify immediate corrections.
 - Develop good practices guidance.
 - Modify permit conditions as required.
- Evaluate closed hazardous waste landfills.
- Identify remediation technologies with potential to reduce or contain emissions from sites during and after closure and/or remediation.

Staff Analysis. The proposal is to reexamine existing practices for effectiveness, not to develop new practices or to expand enforcement activities. The proposal presented by the Administration lacks substance and provides no real assurance that it will result in any greenhouse gas reductions or benefits. The activities described could be performed by existing staff who already conduct inspections and enforcement on hazardous waste facilities. At the same time, there are other activities DTSC could undertake to reduce greenhouse emissions.

Staff Recommendation. Staff recommends that the Subcommittee disapprove this item until the Administration identifies more tangible benefits from these expenditures.

8570 Department of Food and Agriculture

6. Implementation of the Global Warming Solutions Act of 2006

Background. Enteric fermentation is the process of feed digestion by ruminant animals, primarily dairy and beef cattle. This process results in methane emission from the animals. Methane is a greenhouse gas and the cattle emit large quantities of methane. Feed rations are a complex system that not only provides nutrition to the animal, but also provides cost-effective and efficient use of other agricultural byproducts including food processing residuals, fruit culls, almond hulls, cotton seed, and even rice straw. It is currently not known how the various diets influence emissions from cattle.

Different soils and plants are able to sequester carbon at different levels. California has over 300 different soil types. For farmers to accept conservation tillage techniques and cover crops there would need to be demonstration of cost, yield, quality, pest management, and other factors.

Governor's Budget. The Governor's Budget proposes \$331,000 in reimbursements for two permanent positions to study reduction in enteric fermentation and increases in soil carbon sequestration.

Proposed Actions. The California Department of Food and Agriculture (CDFA) is proposing to support directed scientific and economic studies necessary to identify, demonstrate, and quantify performance of specific greenhouse gas emissions reduction strategies. These studies will focus on enteric fermentation (or direct greenhouse gas emissions from animals) and soil carbon sequestration in the agricultural sector.

For enteric fermentation, CDFA would establish a research initiative to quantify emission changes from enteric fermentation resulting from changing feed regimens versus productivity impacts.

For soil carbon sequestrations, CDFA would study the benefits from implementing conservation tillage and cover crops for the various California soil types.

Staff Recommendation. The study of enteric fermentation is already being conducted by the University of California, Davis. The use of soil carbon sequestration is an activity assigned to the ARB under AB 32, and not to the CDFA. Therefore, staff recommends approving the identical amount of funding from the Department of Food and Agriculture Fund and adopting budget bill language and trailer bill language directing CDFA to develop and implement a methane capture program only (no soil sequestration) and prohibiting any funds from being taken from local county agricultural commissioners.

3860 Department of Water Resources

7. Proposition 84 Multi-Benefit Planning and Feasibility Studies

Background. The Department of Water Resources (DWR) intends to initiate two specific types of on-going studies, in cooperation with other State agencies to evaluate, in greater detail, the anticipated effects of climate change on California's rivers and waterways. DWR intends to use the information from the studies to redesign existing systems to minimize flood impacts, maintain water supplies, and minimize environmental impacts to fish and to riparian habitats. Coastal waterways and inland estuaries, such as the Delta, will also be studied to identify impacts from rising sea levels, so that recommendations can be developed to address specific problems. These studies are:

- Promotion of Urban and Agricultural Water Conservation
- Completion of CALFED Surface Storage Studies
- Integration of Flood Management and Water Supply Systems
- Implementation of the California Water Plan Recommendations
- Development of a Delta Vision and Strategic Plan

Proposed Actions. The five positions requested would work on reducing greenhouse gas emissions from water management activities, including increasing hydropower production, increasing water use efficiency, and reducing water use.

Governor's Budget. The Governor's Budget proposes \$64,725,000 in Proposition 84 bond funds for the Department of Water Resources to conduct studies on global climate change, water storage, water conservation, and the Delta Vision.

Finance Letter. An April Finance Letter amends the Governor's proposal to further request five new positions to work on climate change-related water issues at the DWR.

Staff Analysis. According to numerous reports and studies performed by parties as diverse as the California Energy Commission and the Pacific Institute, one of the most significant untapped resources in the climate arena is the combined savings in water and energy achieved by reducing energy use and adopting measures to increase water efficiency. In addition, DWR is one of the few agencies in state government that is an energy provider and that also uses large amounts of fossil fuels to power its operations.

Staff Recommendation. Staff recommends that the Subcommittee adopt the following actions:

1. Reject the budget proposal and finance letter.
2. Adopt Trailer Bill Language as follows:
 - a. Require DWR to evaluate and, where feasible and where it doesn't increase costs to ratepayers, seek to renegotiate CERS contracts to reduce fossil fuel consumption and

- increase use of renewable energy.
 - b. Require DWR, in its procurement of electricity, to abide by the same greenhouse gas emissions performance standards applicable to investor-owned utilities and municipal utilities.
 - c. Require DWR, by 7/1/08 to adopt standards for water/energy efficiency for projects and activities within its jurisdiction for the reduction of GHG emissions.
3. Adopt Supplemental Report Language that requires DWR to report on the following semi-annually:
- a. Actions it is taking to phase out use of coal power from its Reid Gardner Plant and to replace it with other less carbon intensive energy.
 - b. Actions it is taking to reduce fossil fuel use in its CERS contracts and to replace that fuel with less polluting energy resources.
 - c. The amount and sources of electric power used to convey water in the state Water Project and actions it is taking to reduce fossil fuel use and increase energy efficiency in state water project operations.
 - d. Actions it is taking to reduce energy and water consumption through its statutory and regulatory authority and through the disbursement of bond funds.

3360 Energy Commission

8. Energy Related Climate Strategy Analysis

Background. The California Energy Commission (CEC) has jurisdictional authority over energy efficiency and renewable energy in publicly owned utilities. The CEC also has experience with activities related to climate change, such as reports on emission reduction strategies, creation of a climate change research and development program, and incorporation of climate change in the state's energy planning documents.

Governor's Budget. The Governor's Budget proposes \$1,110,000 from the Energy Resources Programs Account for five permanent positions and contract funds (\$500,000) for analytical work to support the implementation of emissions reduction strategies in the energy sector.

Proposed Actions. The CEC is proposing to:

- Provide technical support to the Air Resources Board (ARB) in the establishment of 1990 emissions levels and evaluation of energy-related emission reduction measures for early action and the scoping plan.
- Acquire and provide data and information on maximum technical feasibility of greenhouse gas emission reduction associated with energy demand and energy supply.
- Provide technical assistance, information outreach, and feasibility assessment funding to local governments, industry owners, and other entities to facilitate development of energy-related projects that reduce greenhouse gas emissions.
- Support activities of the Climate Action Team.
- Provide technical guidance to the ARB on a broad range of provisions in the statute related to the California Climate Action Registry.
- Coordinate with the ARB on all relevant plan elements as directed in the statute.
- Support the ARB in development and operation of an Economic and Technical Advancement Advisory Committee.
- Assist the ARB in development of market-based mechanisms, alternative compliance mechanisms, regulatory programs, and voluntary actions.

The contract funds will be used for technical support on strategy development, identification and evaluation of implementation mechanisms, data and information sources, economic impacts, and interaction effects among related strategies. Once specific energy-related strategies have been adopted by the Climate Action Team and the ARB, the contractor support would be shifted towards design and implementation issues.

Staff Analysis. Under AB 32, responsibility for emission reductions is assigned to the ARB and not to the CEC. Moreover, the *2006-07 Budget Act* transferred other activities formerly vested with the CEC (e.g. development of an emission inventory) to the ARB in anticipation of the enactment of AB 32. The activities proposed to be funded under this item do not appear to be activities over which the CEC has any jurisdiction. At the same time, there are activities the CEC does have jurisdiction over that help meet climate goals and other state policy objectives.

Staff Recommendation. Staff recommends that the Subcommittee take the following actions:

1. Approve the positions requested but reject the contract funds.
2. Require that the positions be used for the following activities that are within the CEC's jurisdiction and that reduce greenhouse gas emissions:
 - a. Increased oversight and enforcement of existing state building standards. The CEC estimates that the standards it adopts are enforced only 60% of the time and greater oversight/assistance is needed for local building departments to implement the standards – Two positions.
 - b. Review and revision of the CEC's power-plant siting regulations to ensure that they are "optimized" to reduce greenhouse emissions in the siting and construction of new power-plants – One position.
 - c. Enforcement of the state's greenhouse gas emission performance standard on municipal utilities – Two positions.

10. Climate Change: Increasing the Use of Alternative Fuels

Background. The transportation sector is the largest source of greenhouse gases in California. In its 2003 Energy Report, the California Energy Commission (CEC) adopted a specific nonpetroleum fuel use goal to increase the use of non-petroleum fuel to 20 percent by 2020. AB 1007 (Pavley, 2005) requires that, not later than June 30, 2007, the CEC in partnership with the Air Resources Board (ARB) and in consultation with relevant state agencies, develop and adopt a state plan to increase the use of alternative transportation fuels. According to AB 1007, the CEC is supposed to provide administrative and technical support to the ARB in the areas of alternative fuel refueling stations, biofuels production incentives, and transportation research and development.

Proposed Actions. To develop the plan required by AB 1007 and the Governor's alternative fuel directives, the CEC will have to expand its alternative fuels work to include: 1) updating and expanding fuel-cycle analyses, 2) ensuring no net emissions increase, 3) researching options for maximizing in-state alternative fuel production, 4) encouraging consumer use of alternative fuels, and 5) evaluating incentives and other means for increasing the siting of alternative fuel refueling stations throughout California.

Specific tasks the CEC would undertake are:

- Identify the market potential for alternative fuels and recommends those alternative fuels for financial support.
- Develop criteria for locating refueling stations at selected sites throughout California for the best candidate fuels.

- Recommend criteria for awarding fuel production incentives to producers of clean, renewable transportation fuels.
- Manage specific projects that result from grants or loans awarded by ARB for refueling stations and technology development projects.
- Develop a consumer education and public outreach program to publicize the availability of state funding.
- Develop a joint strategic research plan to guide transportation research and development.
- Establish stakeholder advisory committees to provide advice and input to develop an aggressive alternative fuels program.

Governor's Budget. The Governor's Budget proposes \$466,000 from the Energy Resources Program Account for four permanent positions to support a joint CEC-ARB 5-year plan to increase the use of alternative fuels in California.

Staff Analysis. The use and promotion of alternative fuels is an important part of California's greenhouse gas emission reduction strategy. However, it is not clear from current Administration actions as to which state agency is directing fuels policy. Both AB 32 and the Administration through its executive orders have vested low carbon fuels policy and regulation with the ARB. Until the Administration presents an accountable plan for the oversight and regulation of clean alternative fuels, the Legislature may wish to not fund the Administration's proposals.

Staff Recommendation. Staff recommends that the Subcommittee reject the budget proposal.

8660 Public Utilities Commission

10. AB 32 – Climate Change Activities

Background. Currently, the Public Utilities Commission (PUC) Administrative Law Judge Division has eight full-time employees assigned to major energy proceedings, including long-term procurement, energy efficiency, and the implementation of renewable energy initiatives. During 2006-07, the Legislature authorized six positions to research climate change at the PUC. Of those six positions, the PUC has filled five.

Proposed Actions. The positions requested are one Administrative Law Judge and two legal analysts. The senior level Administrative Law Judge would oversee the climate initiatives and integrate that work with the ongoing energy proceedings of the PUC. The legal analysts would provide paralegal support.

Consultant would be used for: 1) assistance with modeling the costs and benefits of various greenhouse gas emissions cap scenarios to the power sector in California, and 2) funding for protocol development for measuring and verifying greenhouse gas emissions reductions in the power sector.

Governor's Budget. The Governor's Budget proposes \$1,272,000 from the Public Utilities Commission Utilities Reimbursement Account for three permanent positions for legal support in major climate change-related proceedings and contract funds (\$1 million).

LAO Recommendation. The LAO notes that during a recent PUC hearing on climate change, the PUC publicly stated its intent to establish a cap-and-trade market mechanism on emissions for investor-owned utilities (currently regulated by the PUC) and publicly-owned utilities (currently not regulated by the PUC). The PUC also stated its intent to conduct a proceeding to determine the base year for the cap-and-trade program. (In cap-and-trade programs that have been established elsewhere, the government sets a limit on, or "caps" emissions, issues a limited number of emissions allowances, and allows regulated sources to buy and sell, or "trade" those emissions allowances.)

The LAO finds PUC's intention to hold climate change-related proceedings, and in particular its intention to move ahead with a very specific market mechanism, contrary to the intent of AB 32. This is because the act charges Air Resources Board (ARB) with identifying and establishing greenhouse gas emission reduction measures, and with determining whether those measures will include market-based mechanisms. AB 32 also clearly established a greenhouse gas emissions base year of 1990, making the PUC's determination of a baseline unnecessary.

Given that the PUC's budget request inappropriately moves ahead of the statutorily directed effort at the ARB, the LAO recommends that the Legislature deny the request for \$1.3 million for the PUC. The LAO also recommends adoption of budget bill language to prohibit the PUC from spending resources to develop and/or implement market mechanisms:

Item 8660-001-0462. Of the funding appropriated in this or any other item, no funds may be expended by the commission in connection with the implementation of market mechanisms as a greenhouse gas (GHG) emission reduction strategy until the Air Resources Board has completed its statutorily required statewide GHG emissions reduction plan, has included these mechanisms in the plan, and has directed the commission to begin to implement them.

Staff Analysis. In addition to the concerns raised by the LAO, the proposal would make the \$1 million for consultants a part of the PUC's baseline budget for climate change. Since the tasks the consultants would work on will not last indefinitely, it is appropriate to not make consultant fees part of the department's baseline budget.

Staff Recommendation. Staff recommends that the Subcommittee reject the budget proposal until the PUC, CEC, and ARB provide a clear and credible plan for implementing AB 32 for the energy sectors.